

# Mineral Industry Surveys

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## SULFUR IN APRIL 2000

During the month, production of combined Frasch and recovered elemental sulfur was 782,000 metric tons, according to the U.S. Geological Survey. April production was 2% lower than that of March 2000 and 9% lower than that of April 1999. Shipments of these combined products were 2% lower than those of March 2000. Ending stocks for April 2000 were 450,000 tons.

Import and export data for April 2000 were not available at the time of publication and will be published in the Sulfur in May 2000 Mineral Industry Surveys along with apparent consumption. Imports of recovered sulfur for March 2000 were 216,000 tons; exports were 37,000 tons. Imports of sulfuric acid for March 2000 were 152,000 tons; exports were 12,000 tons.

Significant adjustments have been made to the sulfur import data. Reports from the Bureau of the Census appear to underreport sulfur imports, especially material from Canada. The revised figures are based on Census information, data collected and published by the Alberta (Canada) Energy and Utilities Board (EUB) in its monthly production report, and information from other published sources. The EUB report is particularly valuable because the majority of Canadian sulfur is produced in that Province, and most of the Canadian sulfur that enters the United States comes from Alberta. When the data problems are solved, USGS will resume using Census data exclusively.

TABLE 1  
SALIENT SULFUR STATISTICS 1/

(Thousand metric tons)

Period	Production				Shipments, all sources
	Frasch	Petroleum 2/	Natural gas 3/	Total 3/	
1999:	W	6,180	3,790	9,970	9,770 r/
January-April	W	2,010 r/	1,310 r/	3,330 r/	3,250 r/
April	W	523	337	860	848
May	W	511	323	834	838
June	W	500	323	823	757
July	W	521	328	849	859
August	W	543	308	851	790
September	W	505	285	790	792
October	W	534	310	844	860
November	W	491	288	779	781
December	W	567	304	871	845
2000:					
January	W	520	283	803	799
February	W	472 r/	279	751 r/	760 r/
March	W	510 r/	291 r/	801 r/	796 r/
April	W	506 p/	276 p/	782 p/	778 p/
Total	W	2,010 p/	1,130 p/	3,140 p/	3,130 p/

p/ Preliminary. r/ Revised. W Withheld to avoid disclosing company proprietary data; included with "Natural gas."

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

2/ Includes a small quantity from coking operations.

3/ Includes data from Frasch producer.

TABLE 2  
U.S. IMPORTS OF SULFUR 1/

(Thousand metric tons and thousand dollars)

Period	Canada		Mexico		Total, all countries 2/	
	Quantity	Value e/ 3/	Quantity	Value 3/	Quantity	Value e/ 3/
1999:	1,640	12,500	543	27,000	2,580	51,600
January-March	416 r/	3,490	132	6,910	690 r/	15,200
March	161	1,570	40	2,160	225	4,620
April	160	1,470	39	2,100	213	4,130
May	157	1,450	60	3,280	269	5,600
June	147	886	38	2,040	222	3,640
July	134	676	57	2,860	224	5,060
August	107	1,390	37	1,850	162	4,160
September	121	814	42	1,870	180	3,480
October	123	837	45	1,850	186	3,080
November	155	941	37	1,780	247	3,440
December	117	507	56	2,510	190	3,850
2000:						
January	117	1,080	37	1,610	207	3,090
February	116	568	56	2,160	189	1,850
March	116 p/	599 p/	56	2,040	216 p/	3,170 p/
Total	349 p/	2,250 p/	149	5,820	612 p/	8,100 p/

p/ Preliminary. r/ Revised.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

2/ May include other countries not listed.

3/ Declared customs valuation.

Source: Bureau of the Census; as adjusted by U.S. Geological Survey.

TABLE 3  
U.S. IMPORTS OF SULFURIC ACID 1/

(Thousand metric tons and thousand dollars)

Period	Canada			Europe			Total, all countries 2/		
	Quantity	Sulfur content	Value 3/	Quantity	Sulfur content	Value 3/	Quantity	Sulfur content	Value 3/
1999:	865	283	22,500	118	38	1,410	1,370	451	42,800
January-March	222	73	6,410	33	11	263	341	112	9,050 r/
March	69	23	2,120	3	1	48	116	38	3,070
April	72	24	2,030	10	3	147	97	32	2,930
May	88	29	2,110	(4/)	(4/)	32	149	49	3,550
June	77	25	1,790	9	2	120	117	38	3,340
July	57	19	1,020	10	3	184	75	25	2,450
August	54	18	1,220	11	4	143	93	31	2,710
September	56	18	1,510	--	--	--	87	29	4,310
October	74	24	1,950	11	4	90	138	45	4,420
November	75	24	1,990	16	5	299	128	42	4,690
December	90	29	2,470	18	6	134	143	48	5,350
2000:									
January	68	22	1,900	--	--	--	129	42	4,120
February	64	21	1,670	9	2	109	151	49	5,080
March	94	30	4,180	7	2	136	152	50	6,500
Total	226	73	7,750	16	4	245	432	141	15,700

r/ Revised. -- Zero.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

2/ May include other countries not listed.

3/ Declared customs valuation.

4/ Less than 1/2 unit.

Source: Bureau of the Census.

TABLE 4  
U.S. EXPORTS OF SULFUR AND SULFURIC ACID 1/

(Thousand metric tons and thousand dollars)

Period	Sulfur		Sulfuric acid		
	Quantity	Value 2/	Quantity	Sulfur content	Value 2/
1999:	685	34,600	155	48	16,900
January-March	126	8,160	37	12	3,380 r/
March	41	3,160	11	4	1,220
April	113	4,760	13	4	1,860
May	14	1,440	13	4	1,130
June	109	3,810	12	3	1,090
July	4	918	15	5	1,960
August	57	2,940	12	4	1,040
September	88	4,360	13	4	1,440
October	44	2,570	15	5	1,600
November	40	1,390	13	4	1,080
December	90	4,220	12	3	2,280
2000:					
January	104	4,660	16	5	1,390
February	10	1,940	13	4	1,170
March	37	6,600	12	4	1,070
Total	151	13,200	41	13	3,630

r/ Revised.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

2/ Declared f.a.s. (free alongside ship) valuation.

Source: Bureau of the Census.

TABLE 5  
U.S. CONSUMPTION OF SULFUR 1/

(Thousand metric tons)

Period	Domestic sources 2/	Imports	Consumption
1999:	9,090	2,580	11,700
January-March	2,280 r/	690 r/	2,970 r/
March	782	225	1,010
April	735	213	948
May	824	269	1,090
June	648	222	870
July	855	224	1,080
August	733	162	895
September	704	180	884
October	816	186	1,000
November	741	247	988
December	754	190	944
2000:			
January	695	207	902
February	750 r/	189	939 r/
March	759	216	975
Total	2,200	612	2,820

r/ Revised.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

2/ Calculated as shipments minus exports.

TABLE 6  
RECOVERED SULFUR PRODUCED AND SHIPPED IN THE UNITED STATES,  
BY PAD (PETROLEUM ADMINISTRATION FOR DEFENSE) DISTRICT 1/

(Thousand metric tons)

District and source	April 2000 p/		March 2000		Total 2000 2/		Year to date 1999 2/	
	Production	Shipments	Production	Shipments	Production	Shipments	Production	Shipments
PAD 1:								
Petroleum and coke	19	19	24	22	79	85	83 r/	82 r/
Natural gas	4	4	3	4	14	14	14	15
Total	23	23	27	26	93	99	97 r/	97 r/
PAD 2:								
Petroleum and coke	70	68	62 r/	65 r/	271	271	248 r/	246 r/
Natural gas	4	4	4	4	17	17	14	14
Total	74	72	67 r/	69 r/	288	288	262 r/	260 r/
PAD 3: 3/								
Petroleum and coke	303	294	315	317	1,230	1,260	1,270 r/	1,270 r/
Natural gas 4/	181	206	193 r/	182 r/	749	728	915 r/	869 r/
Total 5/	484	500	508 r/	499 r/	1,980	1,990	2,180 r/	2,140 r/
PAD 4 and 5: 6/								
Petroleum and coke	114	107	109 r/	110 r/	429	417	413 r/	400 r/
Natural gas	87	75	90	92	349	345	369	354
California	99	94	94 r/	94 r/	370	361	356 r/	343 r/
Total	201	183	199 r/	202 r/	778	762	783 r/	754 r/
Grand total	782	778	801 r/	796 r/	3,140	3,130	3,330 r/	3,250 r/

p/ Preliminary. r/ Revised.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

2/ May include revisions to prior months.

3/ Includes Puerto Rico and the U.S. Virgin Islands.

4/ Frasch production is included in the natural gas production to avoid disclosing company proprietary data.

5/ Includes data from Frasch producer.

6/ Quantities produced and shipped in California included in petroleum and natural gas. California total shown for information purposes only.

TABLE 7  
COMPARATIVE SULFUR AND SULFURIC ACID STATISTICS 1/

(Million metric tons per year [annualized basis] and dollars per metric ton for period shown)

	2000			1999
	April	March	Year to date	total
Production	9.54 p/	9.46 r/	9.49	9.97
Shipments	9.49 p/	9.40 r/	9.48	9.77
Exports of sulfur	NA	0.44	0.61	0.69
Imports of sulfur:				
Canada	NA	1.37	1.40	1.64
Mexico	NA	0.66	0.60	0.54
Total 2/	NA	2.55	2.46	2.58
Exports of H <sub>2</sub> SO <sub>4</sub>	NA	0.14	0.16	0.16
Imports of H <sub>2</sub> SO <sub>4</sub> :				
Canada	NA	1.11	0.91	0.87
Europe	NA	0.08	0.06	0.12
Total 2/	NA	1.79	1.74	1.37
Consumption: 3/				
Domestic sources	NA	8.96	8.86	9.09
Imports	NA	2.55	2.46	2.61
Total	NA	11.50	11.30	11.70
Sulfur export values 4/	NA	\$178	\$87	\$50
Sulfur import values: 4/				
Canada	NA	\$5	\$6	\$8
Mexico	NA	\$36	\$39	\$50
Average	NA	\$15	\$13	\$20
H <sub>2</sub> SO <sub>4</sub> export values 4/	NA	\$89	\$88	\$109
H <sub>2</sub> SO <sub>4</sub> import values: 4/				
Canada	NA	\$45	\$34	\$26
Europe	NA	\$19	\$15	\$12
Average	NA	\$43	\$36	\$31

p/ Preliminary. r/ Revised. NA Not available.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

2/ Includes other countries not listed.

3/ Because April trade data were not available, April consumption was not determined.

4/ Average value per ton for most recent data available.